

SELF-SHARPENING TICKET SCRATCHER

This invention relates to a lottery ticket scratcher, and more particularly to a lottery ticket scratcher that retains its scraping edge as it is used.

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BACKGROUND OF THE INVENTION

As lotteries and other gaming alternatives become more popular throughout the United States and the rest of the world, lottery tickets and other protective coated cards have also become popular. In order to complying with gaming procedures, the value of the ticket or such other card is obscured by an opaque protective coating. In order to determine if a lottery ticket or such other card is a winner, all or partial coating must be removed based on the specific rules of the game. Currently in this protective coating can be removed with either the edge of a coin, a finger nail, a knife, or any other device having a knife like edge.

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The problem in using many conventional means such as a coin, a finger nail, or other ticket scratchers is that the coating is removed in sections and not in one or two strokes. Many lottery tickets or such other cards require that only small sections of coating be removed without affecting other sections, and that the other sections are removed, the lottery ticket or such other card becomes invalid. In these applications, current scratchers are often too clumsy to scratch only sections specified for the specific games.

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Other limitations with current scraping means are many. For example, a finger nail is not usually strong or sharp enough to remove the protective coating. Coins with rough edges are not large enough to permit properly gripping the coin, while viewing the scraped area and attempting to remove all or selected coated areas. Also, while handling the coin, it is often difficult to maintain a view of the protective coating area to be removed. Use of a knife or other knife like edges is a problem, because personal injury can occur. Thus, avoidance of the knife or knifelike is required

With the advent of lotteries throughout the United States and the rest of the world, the scrapable ticket is an attractive mechanism or promotional device for the lotteries. Such a ticket has the value of the ticket obscured by an opaque substance. With the opaque substance removed, whether the ticket is a winner or a loser becomes clear.

Such scrapable tickets typically have been indicated as such as numbers or letters printed to create beneath a top the opaque coating. A player is required to scrape off this tough opaque coating. This opaque coating is intended to be tamper proof, until physically removed with a scraping tool. Some scraping tools include a coin or a finger nail.

When scraping the ticket; a coin, or another item, which has a hard edge; is usually needed. Many particular devices are known for scraping lottery tickets. However, much

improvement can be made in the existing devices.

Because a coin is hard to grip, it lacks effectiveness as a scratcher. It is, at best, awkward to grip a coin, while leaving an appropriate portion of the coin edge suitable for scraping. Sometimes, a card to be scraped requires a fluted edge. Other times, the flat edged coin is operable. The only determining method is trial and error.

Many different devices are known as an attempt to overcome the problems associated with the use of a coin for scraping. However, those devices lack the ability to retain a sharp edge. If the device can retain a good scraping edge, the scratcher will be more effective for a longer period of time. With this scratcher, having an effective edge for a longer period of time, greater efficiency can be obtained. However, such desirable traits are difficult to obtain and work against each other.

These other devices have gripping problems also. If the device is large enough to be easily gripped, the area, on which scraping is desired, may be obscured. It is desirable to maintain a view of that scraping area, while efficiently scraping the same. If the device is small enough to provide a good view of the scraping area, gripping the device becomes a problem.

It is also desired to make the scratcher very portable. While the scratcher must be easily carried, the sharp or

scraping edge thereof must not damage the clothing of the person carrying the scratcher. Thus, many attributes of a scratcher are contraindicated. If the edge is sharp enough to be a good scratcher, damage to clothes can occur. If the edge is dull enough, so as not to damage the clothes, scraping efficiency is diminished.

Thus, it is desired to provide a scratcher that overcomes these problems. The desirable aspects must be maximized at the same time, with minimal sacrifice of other desired advantages.

SUMMARY OF THE INVENTION

Among the many objectives of this invention is the provision of a scratcher for a lottery ticket and a similar item.

A further objective of this invention is the provision of a scratcher with a durable edge.

Yet a further objective of this invention is the provision of a scratcher with an efficient gripping area.

Still, a further objective of this invention is the provision of a scratcher with an efficient size for scraping a desired area.

These and other objectives of the invention (which other objectives become clear by consideration of the specification, claims and drawings as a whole) are met by providing a scratcher with a housing having a scraping edge and a gripping

device thereon.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 depicts a perspective view of a first embodiment of the lottery ticket scratcher 100 of this invention having a convex gripping area 120. ~~not on fig 1~~

Figure 2 depicts a side view of the lottery ticket scratcher 100 of this invention based on Figure 1.

Figure 3 depicts a side view of the lottery ticket scratcher 100 of this invention, which is a reverse view of Figure 2.

Figure 4 depicts an end, plan view of the lottery ticket scratcher 100 of this invention in partial cross-section, based on Figure 3 and Section Line 4-4.

Figure 5 depicts a front end plan view of the lottery ticket scratcher 100 of this invention.

Figure 6 depicts a perspective, magnified view of lottery scratcher 100, showing fibers 132 in scraping 130.

Figure 7 depicts a side view of a second embodiment of the lottery ticket scratcher 100 of this invention having a concave gripping area 150.

Figure 8 depicts a perspective view of a third embodiment of the lottery ticket scratcher 100 of this invention having a concave gripping area 150 with an elongated scraping edge 160.

Figure 9 depicts a side view of a third embodiment of the

lottery ticket scratcher 100, based on Figure 8.

Figure 10 depicts a side view of a fourth embodiment of the lottery ticket scratcher 100 with a rounded grip 170.

Throughout the figures of the drawings, where the same part appears in more than one figure of the drawings, the same number is applied thereto.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The lottery ticket scratcher of this invention includes the housing having an edge molded or otherwise formed therein. Within the molded edge or scraping surface, are fibers. These fibers have a certain rigidity. This rigidity does not damage clothes, yet maintains the desired scraping ability for the edge of the scratcher. With these fibers embedded in material of the scraping edge, as the scraping edge is worn down, more fibers appear to replace the fibers being worn away with use, and the desired results of an efficient scratcher are obtained.

In particular, the scratcher includes a plastic housing, with a gripping mechanism therein designed to support and assist any person in gripping the same. With the edge protruding therefrom, a great advantage is obtained in that the edge can be used to scrape, while support for the gripping of the scratcher is also obtained.

The gripping mechanism may be in any suitable shape. It may have a series of flexible ribs, which are either convex or

concave in nature. If the gripping mechanism is concave, the flexible ribs may be either reduced or eliminated. The gripping mechanism may also be flat.

This scratcher has number of advantages. An ergonomic, contoured grip portion, which provides a firm, easily controlled, finger grip for the right hand or the left-hand. A recessed area opposite the scratcher provides added control with the index finger of the user. The ergonomic, contoured grip portion incorporates an integral scratcher, having a flat area for scraping large areas and arcuate area for scraping smaller areas.

Binding material with suitable flexibility may be used to form the scratcher of this invention. A preferred material is a glass fiber reinforced plastic. Not only do the glass fibers add considerable strength to the scraping edge, they also provide an abrasive media to help remove the opaque coating of lottery tickets and maintain an effective scraping edge. As the plastic scratcher edge wears away, additional glass fibers are continually exposed at the surface of the edge, thereby maintaining a useful abrasive scraping edge on the surface.

Furthermore, the housing may also have a convenient key ring receiving aperture adjacent to the end of the contoured grip portion. Also, a surface on a side the contoured grip portion provides an area, suitable for advertising for

TOP SECRET GOVERNMENT EDITION

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supporting a design.

The housing, the gripping mechanism, and the edge may be up one to three different parts, and formed of one to three different materials. In other words, the scratcher may be assembled or molded as a unit.

The scratcher may be made of plastic. The blade, also sometimes referred as an edge, while also being a plastic material has fibers dispersed therein. Fibers add scraping power to the blade or scraping edge. As the blade wears down, more fibers are exposed to replace fibers worn away. Scraping ability is thus maintained. The blade may even be made as replaceable within the housing in a standard fashion if desired. The blade is usable for scraping or scratching surfaces, from which coating removal is desired.

Referring now to Figure 1, Figure 2, Figure 3, and Figure 5, lottery scratcher 100 has a housing 110, a convex gripping area 120, and a scraping blade 130. Housing 110 supports the lottery scratcher 100, by providing the convex gripping area 120 and the scraping blade 130.

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Adding Figure 4 and Figure 6 to the consideration, scraping blade 130 has a plurality of fibers 132 contained therein. Fibers 132 in the scraping blade a preferred embodiment, due to a retained scraping ability.

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While it is not desired to be bound by any particular theory, the following postulate is offered regarding the

efficiency of scratcher 100. As the scraping blade 130 of lottery ticket scratcher 100 is used, more of fibers 132 are continually exposed at the surface thereof, as some of fibers 132 are worn away. Thus, due to a maintained exposure of fibers 132, scraping blade 130 maintains a substantially efficient, possibly even permanently sharp, edge 134.

As is clear from drawings, housing 110, convex gripping area 120, and scraping blade 130 are generally thin in nature, and have opposing symmetrical sides and an edge on the blade 130. The scraping blade 130 is mounted on an edge of the housing 110. The convex gripping area 120 protrudes above the surface of the housing 110. Thus, the lottery ticket scratcher 100 has tremendous advantages.

Housing 110 preferably has a generally triangular shape. Preferably, the triangular shape includes an obtuse angle, that is an angle greater than 90 degrees, as gripping angle 142. Convex gripping area 120 is adjacent to gripping angle 142. Convex gripping area 120 may include a series of flexible flutes 122 or raised ridges, which assist the gripping of the scratcher 100. While assisting the grip, flutes 122 also add comfort to the grip.

Thanks to the triangular shape and gripping angle 142, and the blade 132 has flat protruded scraping side 144 and a small arcuate scraping surface 146. In other words, the blade 132 extends from the straight and flat, or long and

large scraping surface 144 opposite gripping angle 142. Then
scraping edge or blade 132 extends around a vertex oppositely
disposed from housing aperture 140, from the protruded
scraping side 144, which is opposite gripping angle 142, into
the small arcuate scraping surface 146.

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With the optional housing aperture 140, the lottery ticket scratcher 100 is easily connected to a holding device such as a key ring (not shown). Thus, the lottery ticket scratcher 100 provides both portability and great utility, as a scratcher.

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Referring now to Figure 7 and Figure 8, the second and most preferred embodiment of the lottery ticket scratcher 100 of this invention has concave gripping area 150. This concave gripping area 150 is a preferred embodiment, due to the ease of manufacture and greater gripping efficiency.

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In Figure 8 and Figure 9, protruded scraping side 144 is replaced with an elongated scraping edge 160 which extends from about the housing aperture 140 to arcuate scraping side 146. Elongated scraping edge 160 permits more efficient scraping of larger areas.

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In Figure 10, a fourth embodiment of the lottery ticket scratcher 100 with a rounded grip 170. Rounded grip 170 has edge ribs 172 mounted in a substantially rounded housing 174. From rounded housing 174 extends arcuate scraping edge 176, having substantially symmetrical flat scraping edges 178

extending tangentially from rounded housing 174 into scraping arc 180. Housing aperture 140 may also be used herein on rounded housing 174 and is preferably oppositely disposed from scraping arc 180.

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This application -- taken as a whole with the abstract, specification, claims, and drawings being combined -- provides sufficient information for a person having ordinary skill in the art to practice the invention as disclosed and claimed herein. Any measures necessary to practice this invention are well within the skill of a person having ordinary skill in this art, after that person has made a careful study of this disclosure.

Because of this disclosure and solely because of this disclosure, modification of this method and device can become clear to a person having ordinary skill in this particular art. Such modifications are clearly covered by this disclosure.

What is claimed and sought to be protected by Letters Patent of the United States is: